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REMARKS

Claims 1-6, 12-18 and 20-78 are currently pending in the application. Claims 1, 5, 12, 17, 24, 32, 34, 43, 52, 61, 64, 66, 70 and 74 have been amended to better claim the invention.

I. Claim Rejections under 35 U.S.C. §102

In the Office Action, claims 1-6, 12-18 and 20-78 were rejected under 35 U.S.C. §102(e) as being anticipated by United States Patent Publication No. 2002/0083413 to Kodosky et al. (hereafter "Kodosky"). Applicants respectfully traverse this rejection.

A. Claims 1 and 5

Applicants submit that Kodosky does not disclose, either explicitly or implicitly, at least the following feature of claims 1 and 5: *representing the at least one function graphically and separately from the at least one state or transition in the graphical representation of the finite state machine.*

In the Office Action, the Examiner claims that, "Figure 19 consists of numerous states which belong to the provided state diagram and can be construed as functions since as noted in paragraph 168 'In one embodiment of the invention, the state diagram information may include information specifying executable code or source code, referred to below as program code, associated with one or more states. For example, when the user is using a state diagram editor to create a state diagram, when the user places a state in the state diagram, in one embodiment the user may further specify program code for the state'" (Office Action, page 2).

Applicants' claims 1 and 5 claim *a function that is represented graphically and separately from a state or transition in a graphical representation of a finite state machine.* Figure 19 of Kodosky merely discloses an example of a state diagram. Although Figure 19 of Kodosky discloses a state diagram, Kodosky does not disclose *a function that is represented graphically and separately from the state and the transition in the graphical representation of the finite state machine.*

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For reasons set forth above, Applicants respectfully request that the above rejection of claims 1 and 5 be withdrawn.

B. Claims 2-4 and 6

Applicants' claims 2-4 and 6 depend from claim 1 and, as such, incorporate the subject matter of claim 1. Applicants submit that claims 2-4 and 6 are in condition for allowance for at least the reasons set forth above with regards to claim 1.

Furthermore, Applicants submit that Kodosky does not disclose, either explicitly or implicitly, the Applicants' claimed *modifying the at least one function through graphical diagramming*, which is clearly present in claim 6. The Examiner claims that Kodosky discloses this feature in Figure 8. (Office Action, page 5). Applicants respectfully disagree.

At paragraph 0168, Kodosky discloses that a user may create a state diagram using a state diagram editor. In addition, in Figure 8, Kodosky depicts source code that is programmatically generated from a state diagram. Although Kodosky discloses (1) that a user may create a state diagram and (2) that a source code based program may be programmatically generated from the state diagram, Kodosky does not disclose *a function that is modified through graphical diagramming*. The state disclosed in Kodosky is not a graphically represented function that is modified through graphical diagramming.

For reasons set forth above, Applicants respectfully request that the Examiner withdraw the above rejection of claims 2-4 and 6.

C. Claims 12 and 17

Applicants submit that Kodosky does not disclose, either explicitly or implicitly, at least the following feature of claims 12 and 17: a graphical function *being represented graphically and separately from the at least one state or transition in the finite state machine*. As discussed above, although Kodosky discloses a state diagram, Kodosky does not disclose a function that is represented graphically and separately from the state and the transition in the finite state machine.

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The subject matter of claims 12 and 17 relates to graphical functions. A graphical function is "graphical" in that the graphical function may be defined graphically rather than textually. For example, a user may employ graphical constructs to define the graphical function. A graphical function is also "graphical" in that it may have a graphical representation.

In addition, a graphical function may include a group of instructions that may be invoked and that returns a result. Moreover, each graphical function may be assigned a name, which may be used to call that graphical function from anywhere within the finite state machine (see, for example, the present application, Figure 2, reference number 38 and page 5, lines 1-8).

The Examiner claims that the "Choose Number" state, in Kodosky, is called by the "Start," "Number is Not Prime," etc. (Office Action, page 2). Applicants respectfully disagree.

Figure 19 of Kodosky illustrates a state diagram including states. Although Kodosky discloses a state diagram, Kodosky does not disclose that a state is called by another state in a state diagram. An arrow between states in the state diagram of Figure 19 of Kodosky is not an indication that a state is called by another state. Rather, an arrow in the state diagram of Figure 19 of Kodosky shows a transition from a state to another state. The transition is not the same as *a function call that returns a result*. For example, the arrow between the "Choose Number" state and the "Number is Not Prime" state in Figure 19 of Kodosky is not an indication that the "Choose Number" state is called by the "Number is Not Prime" state. Rather, the arrow shows a transition from the "Choose Number" state to the "Number is Not Prime" state. This transition is not a function call. The transition does not return a result from the "Number is Not Prime" state to the "Choose Number."

For reasons set forth above, Applicants respectfully request that the Examiner withdraw the above rejection of claims 12 and 17.

D. Claims 13-16

Claims 13-16 depend from claim 12 and, as such, incorporate the subject matter of claim 12. Applicants therefore submit that claims 13-16 are in condition for allowance for at least the reasons set forth above in connection with claim 12.

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Applicants also submit that Kodosky does not disclose, either explicitly or implicitly, at least the following feature of claim 15: *the user input comprises a function flow diagram*. The Examiner claims that Kodosky discloses this feature at page 1, paragraph 9, lines 7-9. (Office Action, page 6). The Applicants respectfully disagree.

The portion identified by the Examiner recites that "[t]he diagram may have one or more of data flow, control flow and/or execution flow representations." The Examiner seems to imply that the data flow, control flow and/or execution flow representations disclosed in Kodosky are the equivalent of the Applicants' claimed *function flow diagram*. Applicants respectfully submit that the data flow, control flow and/or execution flow representations disclosed in Kodosky are not equivalent to the Applicants' claimed *function flow diagram*.

For reasons set forth above, Applicants respectfully request that the Examiner withdraw the above rejection of claims 13-16.

E. Claims 18 and 20-23

Claims 18 and 20-23 depend on claim 17 and, as such, incorporate the subject matter of claim 17. Applicants submit that claims 18 and 20-23 are in condition for allowance for at least the reasons set forth above with regards to claim 17.

Applicants also submit that Kodosky does not disclose, either explicitly or implicitly, at least the following feature of claim 21: *the user input comprises a function flow diagram*. As discussed above, Kodosky does not disclose *a function flow diagram for defining a graphical function*.

Applicants further submit that Kodosky does not disclose, either explicitly or implicitly, at least the following feature of claims 23: *means for hiding the display of the function flow diagram based upon user input*. The Examiner claims that Kodosky discloses this element at paragraph 9, lines 7-9 (Office Action, page 7). The Applicants respectfully disagree.

The portion identified by the Examiner recites that "[t]he diagram may have one or more of data flow, control flow and/or execution flow representations." The data flow, control flow

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and/or execution flow representations disclosed in Kodosky are not a function flow diagram that defines at least one graphical function. Further, the identified portion of Kodosky is silent about hiding the display of the function flow diagram.

For reasons set forth above, Applicants respectfully request that the Examiner withdraw the above rejection of claims 18 and 20-23.

F. Claims 24 and 32

Applicants submit that Kodosky does not disclose, either explicitly or implicitly, at least the following features of claims 24 and 32: *the graphical representation of the finite state machine including at least one state or transition and the graphical representation of the function being represented graphically and separately from the at least one state or transition in the graphical representation of the finite state machine*. As discussed above, Kodosky does not disclose a *function represented graphically and separately from the state and the transition in the finite state machine*.

For reasons set forth above, Applicants respectfully request that the Examiner withdraw the above rejection of claims 24 and 32.

G. Claims 25-31 and 33

Claims 25-31 depend from claim 24 and, as such, incorporate the subject matter of claim 24. Applicants submit that claims 25-31 are in condition for allowance for at least the reasons set forth above with regards to claim 24.

Applicants also submit that Kodosky does not disclose, either explicitly or implicitly, the following feature of claim 26: *the function prototype defines a textual format for invoking the function*. The Examiner claims that Kodosky discloses this element at paragraph 132, lines 1-5 and Figure 8 (Office Action, page 8). The Applicants respectfully disagree.

The portion identified by the Examiner recites that: "[t]he subdiagram for the "Init" state (and for future states added as the user adds states to the state diagram) is left mostly empty, to

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allow the user to specify exactly what set of instructions should be executed when this state becomes active."

The Examiner claims that the instructions specified for a state in Kodosky is equivalent to the Applicants' claimed function prototype. The Applicants respectfully submit that this equivalence is improper.

The Applicants' claimed function prototype may specify the syntax for invoking a function and may include a function name, a parameter list listing arguments passed to the function when the function is invoked, and a return parameter representing a list of values returned by the function. (the present application, page 3, lines 22-29).

On the other hand, in Kodosky, a user may specify instructions to be executed when the state is active. Kodosky does not disclose that a user specifies a textual format for invoking the function. Moreover, the state disclosed in Kodosky is not the same as the Applicants' claimed *function which may be represented graphically*.

For reasons set forth above, Applicants respectfully request that the Examiner withdraw the above rejection of claims 25-31.

H. Claim 33

Claim 33 depends on claim 32 and, as such, incorporate the subject matter of claim 32. Applicants submit that claim 33 is in condition for allowance for at least the reasons set forth above with regards to claim 32. Therefore, Applicants respectfully request that the Examiner withdraw the above rejection of claim 33.

I. Claims 34, 43 and 52

Applicants submit that Kodosky does not disclose, either explicitly or implicitly, at least the following feature of claims 34, 43 and 52: *the function being represented graphically and separately from the at least one of the states or the at least one of the transitions in the executable model*. As discussed above, Kodosky does not disclose *a function that is represented graphically and separately from states or transitions in an executable model*.

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For reasons set forth above, Applicants respectfully request that the Examiner withdraw the above rejection of claims 34, 43 and 52.

J. Claims 35-42

Claims 35-42 depend from claim 34 and, as such, incorporate the subject matter of claim 34. Applicants submit that claims 35-42 are in condition for allowance for at least the reasons set forth above in connection with claim 34.

Applicants also submit that Kodosky does not disclose, either explicitly or implicitly, at least the following feature of claim 41: *the function defines a textual format for invoking the function*. As discussed above, Kodosky does not disclose any textual format for invoking the function. The state disclosed in Kodosky is not the same as the Applicants' claimed function.

For reasons set forth above, Applicants respectfully request that the Examiner withdraw the above rejection of claims 35-42.

K. Claims 44-51

Claims 44-51 depend from claim 43 and, as such, incorporate the subject matter of claim 43. Applicants submit that claims 44-51 are in condition for allowance for at least the reasons set forth above with regards to claim 43.

Applicants also submit that Kodosky does not disclose, either explicitly or implicitly, at least the following feature of claim 50: *the function defines a textual format for invoking the function*. As discussed above, Kodosky does not disclose any textual format for invoking a function. The state disclosed in Kodosky is not the same as the Applicants' claimed function.

For reasons set forth above, Applicants respectfully request that the Examiner withdraw the above rejection of claims 44-51.

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L. Claims 53-60

Claims 53-60 depend from claim 52 and, as such, incorporate the subject matter of claim 52. Applicants submit that claims 53-60 are in condition for allowance for at least the reasons set forth above with regards to claim 52.

Applicants also submit that Kodosky does not disclose, either explicitly or implicitly, at least the following feature of claim 57: *the function comprises two or more graphical elements*. The Examiner claims that Kodosky discloses this feature at page 6, paragraph 63, lines 1-8. (Office Action, page 14). The portion identified by the Examiner recites that:

[0063] The computer system 82 may include or store a computer program (or programs), referred to herein as a graphical program generation program, or a "GPG program", that is operable to receive state diagram information and programmatically generate a graphical program based on the state diagram information. One embodiment of a method for programmatically generating a graphical program is described below.

This portion discloses a GPG program that may generate a graphical program based on state diagram information. Kodosky, however, does not disclose the Applicants' claimed *function having two or more graphical elements*. Kodosky is silent about a function having a graphical element. The state disclosed in Kodosky is not the same as the Applicants' claimed function.

Applicants further submit that Kodosky does not disclose, either explicitly or implicitly, at least the following feature of claim 59: *the function defines a textual format for invoking the function*. As discussed above, Kodosky does not disclose any textual format for invoking a graphical function.

For reasons set forth above, Applicants respectfully request that the Examiner withdraw the above rejection of claims 53-60.

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M. Claims 61 and 66

Applicants submit that Kodosky does not disclose, either explicitly or implicitly, at least the following features of claims 61 and 66: *the executable model including at least one state or transition, the function being represented graphically and separately from the at least one state or transition in the executable model and textually referencing the graphically represented function within the model to cause an invocation of the graphically represented function during execution of the model.*

1. the executable model including at least one state or transition, the function being represented graphically and separately from the at least one state or transition in the executable model

As discussed above, Kodosky does not disclose, either explicitly or implicitly, a *function that is represented graphically and separately from the at least one state or transition in an executable model.*

2. textually referencing the graphically represented function within the model to cause an invocation of the graphically represented function during execution of the model

The Examiner claims that Kodosky discloses *textually referencing the graphically represented function within the model to cause an invocation of the graphically represented function during execution of the model* at paragraph 132, lines 1-5 and Figure 8 (Office Action, pages 15 and 16). The Applicants respectfully disagree.

The portion of Kodosky identified by the Examiner recites that: "[t]he subdiagram for the 'Init' state (and for future states added as the user adds states to the state diagram) is left mostly empty, to allow the user to specify exactly what set of instructions should be executed when this state becomes active."

Specifically, Kodosky discloses that a user may specify instructions for a state that are executed when the state is active. Kodosky, however, does not disclose textually referencing the graphically represented function to cause an invocation of the graphically represented function. In Kodosky, the user-specified instructions may be executed when the state is active. Kodosky

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does not disclose textually referencing the graphically represented function. Kodosky does not disclose the Applicants' claimed graphically represented function.

For reasons set forth above, Applicants respectfully request that the Examiner withdraw the above rejection of claims 61 and 66.

N. Claims 62-65 and 67-69

Claims 62-65 depend from claim 61 and, as such, incorporate the subject matter of claim 61. Applicants submit that claims 62-65 are in condition for allowance for at least the reasons set forth above with regards to claim 61. Therefore, Applicants respectfully request that the Examiner withdraw the above rejection of claims 62-65.

Claims 67-69 depend from claim 66 and, as such, incorporate the subject matter of claim 66. Applicants submit that claims 67-69 are in condition for allowance for at least the reasons set forth above with regards to claim 66. Therefore, Applicants respectfully request that the Examiner withdraw the above rejection of claims 67-69.

O. Claim 70

Applicants submit that Kodosky does not disclose, either explicitly or implicitly, at least the following features of claim 70: *the executable model including at least one state or transition, the function being represented graphically and separately from the at least one state or transition in the executable model and textually referencing the function defined graphically within the model to cause an invocation of the function during execution of the model.*

1. *the executable model including at least one state or transition, the function being represented graphically and separately from the at least one state or transition in the executable model*

As discussed above, Kodosky does not disclose, either explicitly or implicitly, *a function that is represented graphically and separately from the states or transitions in an executable model*, such as a finite state machine.

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2. *textually referencing the function defined graphically within the model to cause an invocation of the function during execution of the model*

As discussed above, Kodosky does not disclose, either explicitly or implicitly, *textually referencing the graphically defined function*. Also, Kodosky does not disclose *a graphically represented function*.

For reasons set forth above, Applicants respectfully request that the Examiner withdraw the above rejection of claim 70.

P. *Claims 71-73*

Claims 71-73 depend from claim 70 and, as such, incorporate the subject matter of claim 70. Applicants submit that claims 71-73 are in condition for allowance for at least the reasons set forth above with regards to claim 70. Therefore, Applicants respectfully request that the Examiner withdraw the above rejection of claims 71-73.

Q. *Claim 74*

Applicants submit that Kodosky does not disclose, either explicitly or implicitly, at least the following feature of claim 74: *the executable model including at least one state or transition, the graphical function being represented graphically and separately from the at least one state or transition in the executable model*. As discussed above, Kodosky does not disclose, either explicitly or implicitly, *a function that is represented graphically and separately from the states and the transitions in an executable model*, such as a finite state machine.

For reasons set forth above, Applicants respectfully request that the Examiner withdraw the above rejection of claim 74.

R. *Claims 75-78*

Claims 75-78 depend from claim 74 and, as such, incorporate the subject matter of claim 74. Applicants submit that claims 75-78 are in condition for allowance for at least the reasons

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set forth above with regards to claim 74. Therefore, Applicants respectfully request that the Examiner withdraw the above rejection of claims 75-78.

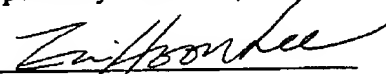
II. Conclusion

In view of the above amendment, Applicants believe the pending application is in condition for allowance and urges the Examiner to pass the claims to allowance. Should the Examiner feel that a teleconference would expedite the prosecution of this application, the Examiner is urged to contact the Applicants' attorney at (617) 227-7400.

Please charge any shortage or credit any overpayment of fees to our Deposit Account No. 12-0080 under Order No. MWS-070RCE. In the event that a petition for an extension of time is required to be submitted herewith, and the requisite petition does not accompany this response, the undersigned hereby petitions under 37 C.F.R. §1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized to be charged to the aforementioned Deposit Account.

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Respectfully submitted,

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